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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,604	01/29/2004	Matthew B. Johnson	58330US004	1605
32692	7590	10/18/2005		
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			EXAMINER CONSILVIO, MARK J	
			ART UNIT 2872	PAPER NUMBER

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/770,604	Applicant(s) JOHNSON ET AL.	
	Examiner Mark Consilvio	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/04, 8/04, 9/04, etc.</u> | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statements (IDS) submitted on 2/17/2005, 8/11/2004, and 9/17/2004 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

The information disclosure statement filed 4/15/2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 and 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuzuhara et al. (US Application No. 2003/00156235) in view of Hommes et al. (US Patent No. 4,853,602).

With regard to claim 1, Kuzuhara et al. disclose the invention as claimed - [a]n optical film (see, e.g., abstract) comprising: a layer of simultaneous biaxially stretched film (see, e.g., par. 219, lines 31-42) being substantially non-absorbing and non-scattering for at least one polarization state of visible light (implicit) and having x, y, and z orthogonal refractive indices wherein at least two of the refractive indices are not equal (inherent if said film is to exhibit retardance, be it in-plane and/or out-of-plane), an in-plane retardance being 100 nm or less and an out-of-plane retardance being 55 nm or greater (pars. 17 and 18) – EXCEPT FOR an explicit teaching wherein said simultaneous biaxially stretched film is a polyolefin film. Hommes et al., however, provides an explicit teaching of the use of polyolefinic materials as suitable candidate materials for simultaneously biaxially stretched films. See, e.g., column 36, lines 28-40, especially line 31 (it being noted that by definition polyolefins are polymers of olefins). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the invention of Kuzuhara et al. such that a polyolefin material be simultaneously biaxially stretched, as explicitly taught by Hommes et al., for at least the purpose of making use of a suitable, readily available retarder material.

With regard to claims 2 and 3, the combination explicitly teaches said polyolefin comprises polypropylene. See especially lines 28-32 in column 36 of the Hommes et al. reference.

Art Unit: 2872

With regard to claims 4-6, the combination explicitly teaches wherein the in-plane retardation is less than 85 nm or from 20 nm to 50 nm or 50 nm to 100 nm, respectively (these limitations being met by the disclosure in the Kuzuhara et al. reference wherein said in-plane retardation is from 31 nm to 120 nm: see, e.g., par. 0017).

With regard to claims 7 and 8, the combination explicitly teaches wherein the out-of-plane retardation is greater than 150 nm and greater than 200 nm, respectively (these limitations being met by the disclosure in the Kuzuhara et al. reference wherein said out-of-plane retardation is from 60 nm to 300 nm: see, e.g., par. 0017).

With regard to claims 9, 26 and 27, the combination explicitly discloses wherein said layer has a thickness of 30 micrometers to 110 micrometers (par. 64 of Kuzuhara et al.).

With regard to claim 28, the combination discloses the claimed invention as set forth above EXCEPT FOR an explicit teaching wherein said layer film has a thickness of 5 micrometers to 25 micrometers. It is to be noted, however, that Kuzuhara et al. provide a teaching wherein the thickness of the layer film disclosed therein can be adjusted by controlling a dope concentration, a dope amount supplied by a pump, a slit width of the mouthpiece portion of a die, an extrusion pressure of a die, or a moving speed of a support for casting (par. 0169). In addition, Kuzuhara et al. explicitly teach, as noted hereinbefore, wherein said layer film has a thickness of 30 to 110 micrometers (claim 6 in Kuzuhara et al.), the lower portion of this range being very nearly equal to the upper portion of the range limitation recited in this claim. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the invention of the combination such that said layer have a thickness of 5 micrometers to 25 micrometers, relying for motivation upon the aforementioned teachings by

Art Unit: 2872

Kuzuhara et al., for at least the purpose of optimizing a retardance performance of the resulting optical film, because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 (CCPA 1955).

With regard to claim 29, the combination discloses wherein the polymer can be comprised of among other materials, polyesters and polyolefins (lines 28-32 in col. 36 of the Hommes et al. reference).

With regard to claim 30, the combination discloses wherein the polymer can be comprised of among other materials, polypropylene (line 32 in column 36 of the Hommes et al. reference).

With regard to claim 31, the combination discloses wherein the polymer can be comprised of among other materials, polyester (lines 28-32 in column 36 of the Hommes et al. reference).

With regard to claim 32, the combination discloses wherein the polymer can be comprised of among other materials, polymethacrylate (lines 39-41 in column 36 of the Hommes et al. reference).

Claims 10 and 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuzuhara et al. (US Patent Application No. 2003/00156235) in view of Hommes et al. (US Patent No. 4,853,602) and further in view Umemoto (US Patent No. 6,659,615).

With regard to claims 10, 13, and 35, the combination discloses an optical film comprising a layer of simultaneous biaxially stretched polymer film (an assertion supported by

Art Unit: 2872

the fact that, e.g., polyesters are a class of polymers that use ester linkages to join the monomer ester units (i.e., polyesters are condensation polymers)) being substantially non-absorbing and non-scattering for at least one polarization and having orthogonal indices of refraction wherein at least two of indices are not equal; an in-plane retardance is 100 nm or less (recall the 31 nm-to-120 nm in-plane retardance range teaching by Kuzuhara et al.); an out-of-plane retardance is 55 nm or greater (recall the 60 nm-to-300 nm out-of-plane retardance range teaching by Kuzuhara et al.); a length and width are at least 0.65 meter (pars. 203 and 204 in Kuzuhara et al. Though Kuzuhara teaches that a polycarbonate film is undesirable because of problems in uniformity of phase difference (par. 7) and the desirability of a uniform width and uniformity in stretching, Kuzuhara et al. does not expressly disclose an explicit teaching wherein an in-plane and out-of-plane retardance are substantially uniform across the length and width. Umemoto, however, teaches the desirability to reduce variation of in-plane retardation between positions of a transparent film as largely as possible (a disclosure that can reasonably be extended to the desirability to reduce variation of out-of-plane retardance). See column 4, line 67 column 5, lines 1-2. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the invention of the combination such that an in-plane and out-of-plane retardance be substantially uniform across the length and width (of said layer of film), relying for motivation on the aforementioned teaching of same by Umemoto, for at least the purpose of optimizing the retardance performance of said layer of film and, by extension, that of said optical film as a whole.

With regard to claims 14 and 15, the combination explicitly discloses wherein said layer of simultaneous biaxially stretched polymer film width and length is at least 1.0 m and 1.5 m,

Art Unit: 2872

respectively (par. 220 in Kuzuhara et al.). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to increase the width of the film since it has been held that where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984). One of ordinary skill in the art would have been motivated to do this for a variety of reasons including constraints on shipping or manufacturing or due to customer requirements on size.

With regard to claims 16-18, although the combination does not explicitly disclose wherein said in-plane retardance changes by less than 4 nm/cm, 2 nm/cm and 1 nm/cm, respectively, along the width and length of the layer of simultaneous biaxially stretched polymer film, Umemoto provides an express teaching of the preferability of reducing variation in in-plane retardance between positions of the transparent film. See column 4, line 67 - column 5, lines 1-2. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the invention of the combination such that the in-plane retardance change less than 4 nm/cm, 2 nm/cm or 1 nm/cm, for at least the purpose of achieving optimal retardance performance from said film, relying for motivation upon the general teaching by Umemoto of the preferability of reducing variation in in-plane retardance between positions of a transparent film as largely as possible, because it has been held that discovering an optimum value of a result-effective variable only involves routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Art Unit: 2872

With regard to claim 19, the combination discloses wherein the polymer can be comprised of among other materials, polyesters and polyolefins (lines 28-32 in col. 36 of the Hommes et al. reference).

With regard to claim 20, the combination discloses wherein the polymer can be comprised of among other materials, polypropylene (line 32 in column 36 of the Hommes et al. reference).

With regard to claim 21, the combination discloses wherein the polymer can be comprised of among other materials, polyester (lines 28-32 in column 36 of the Hommes et al. reference).

With regard to claim 22, the combination discloses wherein the polymer can be comprised of among other materials, polymethacrylate (lines 39-41 in column 36 of the Hommes et al. reference).

With regard to claim 23, the combination explicitly discloses wherein said layer has a thickness of 30 micrometers to 110 micrometers (par. 64 of Kuzuhara et al.).

Claims 11, 12, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuzuhara et al. (US Patent Application No. 2003/00156235) in view of Hommes et al. (US Patent No. 4,853,602) and further in view of Hebrink et al. (US Patent Application No. 2003/0072931).

The combination discloses the claimed invention as set forth above EXCEPT FOR explicit teachings wherein said optical film further comprises, respectively, a nucleating agent and a tackifier. Hebrink et al., however, expressly disclose the use of both a nucleating agent

Art Unit: 2872

(par. 100) as well as a tackifier (par. 112) in the construction of optical films. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the teachings of Kuzuhara and Hommes to add a nucleating agent to allow formation of a more uniform polymer or a tackifier to adjust the elasticity and viscosity of the film.

Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuzuhara et al. (US Patent Application No. 2003/00156235) in view of Hommes et al. (US Patent No. 4,853,602) and Umemoto (US Patent No. 6,659,615) and further in view of Hebrink et al. (US Patent Application No. 2003/0072931).

The combination discloses the claimed invention as set forth above EXCEPT FOR explicit teachings wherein said optical film further comprises, respectively, a nucleating agent and a tackifier. Hebrink et al., however, expressly disclose the use of both a nucleating agent (par. 100) as well as a tackifier (par. 112) in the construction of optical films. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the teachings of Kuzuhara and Hommes to add a nucleating agent to allow formation of a more uniform polymer or a tackifier to adjust the elasticity and viscosity of the film.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Art Unit: 2872

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-35 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-35 of copending Application No. 10/365,250. Although the conflicting claims are not identical, they are not patentably distinct from each other because the optical film as claimed in the instant application falls within the scope of the invention claimed by copending Application No. 10/365,250. Claims 1-35 of the instant application are substantially similar and non-distinct from claims 1-35, respectively, of copending Application No. 10/365,250.

Claims 1-35 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6, 10-12, 14, 18, 19, 20, 21, 28-31 of copending Application No. 10/364,940. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process of making an optical film as claimed in copending Application No. 10/364,940 would result in an optical film non-distinct from the optical film as claimed in the instant application. Claims 1, 11, 12, 10, 13, 24, 25, 16, 19, 26, 33, 34, 29, 27, and 28 of the instant application are substantially similar and non-distinct to claims 1-3, 6, 10-12, 14, 18-21, and 28-30 of copending Application No. 10/364,940. All other claims of the instant application are obvious in light of the art supplied herein with regard to the rejections stated supra.

Claims 1-35 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 6 and 20 of copending Application No. 10/365,332. Although the conflicting claims are not identical, they are not patentably distinct from each other because the optical stack comprising a film as claimed in copending Application No. 10/365,332 would result in an optical film non-distinct from the optical film as claimed in the instant application. Claims 1 and 26 of the instant application are substantially similar and non-distinct to claims 6 and 20 of copending Application No. 10/365,332. All other claims of the instant application are obvious in light of the art supplied herein with regard to the rejections stated supra.

These are provisional obviousness-type double patenting rejections because the conflicting claims have not in fact been patented.

Conclusion

This is a continuation of applicant's earlier Application No. 10/365,250. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

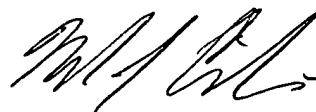
Art Unit: 2872

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

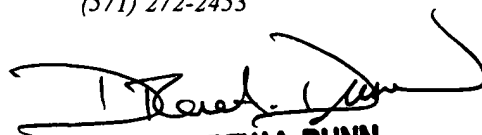
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Consilvio whose telephone number is (571) 272-2453. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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